

REMARKS

Claims 17-22 are pending in this application. Claims 1-16 were previously canceled via preliminary amendment. Claim 17 has been amended. Claim 22 has also been amended to correct a minor misspelling.

Applicant has amended the CROSS-REFERENCE TO RELATED APPLICATIONS section of the specification to correct a minor typographical error presented in the Preliminary Amendment filed October 30, 2003 and to identify the now issued patent number of one of the parent applications. Applicant has also requested amendment of the title, as it appears that the title was not expressly amended in any of the prior preliminary amendments.

Obviousness-Type Double Patenting

Without addressing the merits of the assertion in the Office Action that claims 17-22 of the instant application are not patentably distinct from the claims of U.S. Patent No. 6,684,245, Applicants have submitted herewith a Terminal Disclaimer to obviate the rejection.

Claim Rejections – 35 U.S.C. § 112 and 35 U.S.C. § 101

Applicants have amended independent claim 1 to make it more clear that the claims are directed to only one statutory class - a “system.” Applicants submit that this amendment should overcome both the Section 112 and Section 101 rejections.

Claim Rejections – 35 U.S.C. § 103

Claims 17-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson et al. (US 5,963,146) in view of Suzuki et al. (US 5,892,912). Applicants submit that important features of the claimed invention are neither taught nor suggested by Johnson et al. or Suzuki et al., alone or in combination. Reconsideration of the Section 103 rejection is respectfully requested on that basis.

As recited in independent claim 17, the subject matter of the instant application is directed to an “automated meter reading system” that comprises “a plurality of utility meters,” “a plurality of nodes, each node communicating with a number of designated

meters,” and “a plurality of gateways, each gateway communicating with a number of the nodes.” The system further comprises “a data network interfaced to communicate with the plurality of gateways, and a host server interfaced with the data network to receive the meter data read from the gateways.”

As explained in the specification, an interference problem can arise in such a system if too many meters in the system were to transmit their meter data simultaneously. For example, “if all meters were to transmit simultaneously, the resultant traffic would be so great as to cause tremendous interference on the inbound path.” Spec., p. 13, ll. 15-17. Consequently, one aspect of the claimed invention aims to “reduce this interference by controlling the number of meters that transmit at one time.” Spec., p. 13, ll. 17-18. Specifically, in accordance with this aspect of the invention,

the nodes [of the system] may be grouped together to form groups of nodes and the gateways may be grouped together to form sets of gateways. By selecting one node from each group of nodes, the selected nodes can be formed into a group of noninterfering nodes as is explained in detail below. Similarly, by selecting one gateway from each set of gateways, the selected gateways can be formed into a set of noninterfering gateways as also explained in detail below. (Spec., p. 11, ll. 15-21)

A “group of noninterfering nodes” is defined as:

one in which: (a) no inbound transmission from any node in the group interferes with any inbound transmission from any other node in the group; and (b) no inbound transmission from any meter associated with any node in the group interferes with any inbound transmission from any meter associated with any other node in the group. (Spec., p. 11, ln. 31 – p. 12, ln. 3)

Similarly, a “group of noninterfering gateways” is defined as:

one in which: (a) no inbound transmission from any node associated with any gateway in the group interferes with any inbound transmission from any node associated with any other gateway in the group; and (b) no inbound transmission from any meter associated with any node associated with any gateway in the group interferes with any transmission from any meter associated with any node associated with any other gateway in the group. (Spec. p. 12, ll. 18-23)

Once groups of noninterfering nodes and groups of non-interfering gateways are identified in this manner, the host server can send read commands sequentially to each group of non-interfering nodes or to each group of non-interfering gateways and receive meter data from a

given group in a manner that ensures that transmissions from the nodes or gateways in that group will not interfere with each other. *See*, spec. at p. 11, ll. 22-30.

In order to support the identification of groups of non-interfering nodes and non-interfering gateways, as further recited in claim 17, the “host server maintain[s] a topology database that holds [among other things] ... third electronic data ... for ***grouping together a plurality of nodes to define groups of noninterfering nodes*** based at least in part on the node assignments; and fourth electronic data ... for ***grouping together a plurality of gateways to define sets of noninterfering gateways***.” *See*, claim 17 (emphasis added). Applicants respectfully submit that these claimed features of the host server of the system are neither taught nor suggested by the cited art of record.

The Office Action appears to assert that Johnson et al. discloses these claimed features, but it is unclear what portion of Johnson et al. is cited in support of that assertion. Applicants have reviewed the portions of Johnson et al. cited in the Office Action and are unable to find any teaching or suggestion of a host server that maintains a topology database holding data that reflects the grouping together of a plurality of nodes to define “groups of noninterfering nodes” and the grouping together of a plurality of gateways to define “sets of noninterfering gateways,” as recited in claim 17. Indeed, there does not appear to be any discussion at all in the Johnson et al. reference of defining “groups of noninterfering nodes” or “groups of noninterfering gateways,” as those terms are defined in the instant application. Nor does the Suzuki et al. reference teach or suggest such features.

The Suzuki et al. reference describes a method for managing virtual networks using a virtual network identifier. It has nothing to do with automated meter reading systems and certainly does not teach or suggest an automated meter reading system having a host server that maintains a topology database holding data that reflects the grouping together of a plurality of nodes to define groups of noninterfering nodes and the grouping together of a plurality of gateways to define sets of noninterfering gateways, as recited in claim 17.

For the foregoing reasons, Applicants respectfully submit that claim 17 patentably defines over Johnson et al. and Suzuki et al., alone or in combination. Inasmuch as the remaining claims depend either directly or indirectly from claim 17, Applicants submit that they too patentably define over the cited art or record. Reconsideration of the Section 103(a) rejection of claim 17-22 is respectfully requested.

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PATENT

IDS

Applicants note that the Examiner did not initial reference # 11 identified on the PTO-1449 form submitted with the Information Disclosure Statement filed January 8, 2004. However, reference # 11 – CH 682196 A5 (Switzerland) – was listed on the PTO-1449 form because it is a reference of record in both of the parent applications to which this application claims priority. According to MPEP § 609.02 (A)(2),

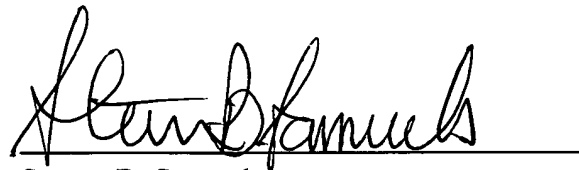
The examiner will consider information which has been considered by the Office in a parent application when examining (A) a continuation application filed under 37 CFR 1.53(b) ** (B) a divisional application filed under 37 CFR 1.53(b) ** or (C) a continuation-in-part application filed under 37 CFR 1.53(b). A listing of the information need not be resubmitted in the continuing application unless the applicant desires the information to be printed on the patent.

Consistent with this rule, Applicants respectfully request that the Examiner consider reference # 11, because it is of record and was considered in the parent applications.

CONCLUSION

For all the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance. Reconsideration of the outstanding Office Action and an early Notice of Allowance are respectfully requested.

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